

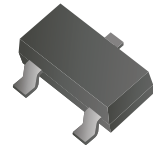
## CDST-21/A/C/S-HF

Reverse Voltage: 250 Volts

Forward Current: 200 mA

RoHS Device

Halogen Free



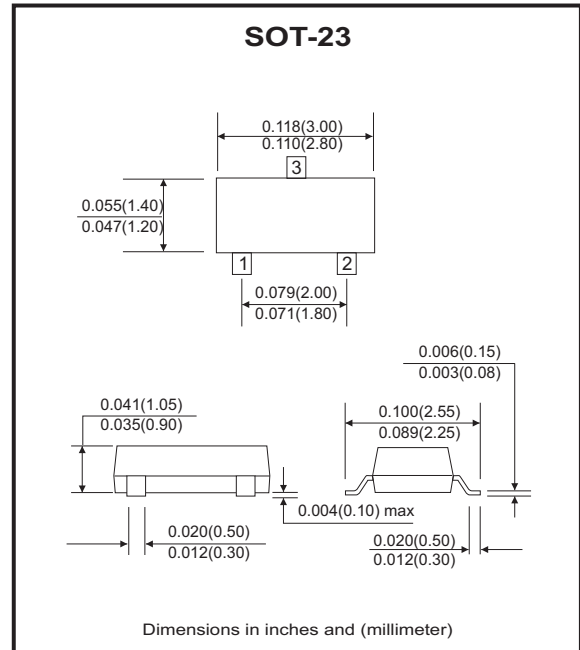
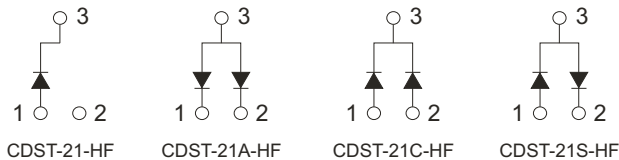
### Features

- Fast Switching Speed.
- Surface Mount Package Ideally Suited for Automatic Insertion.
- For General Purpose Switching Applications.
- High Conductance.

### Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Approx. weight: 0.008 grams

### Circuit diagram



### Maximum Ratings and Electrical Characteristics

(at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Units	
Repetitive peak reverse voltage	$V_{RRM}$	250	V	
Working peak reverse voltage	$V_{RWM}$			
DC blocking voltage	$V_R$			
Average rectified output current	$I_o$	200	mA	
Non-repetitive peak forward surge current	$I_{FSM}$	@ t = 1.0µs	2.5	A
		@ t = 1.0s	0.5	
Repetitive peak forward surge current	$I_{FRM}$	625	mA	
Power dissipation	$P_D$	225	mW	
Thermal resistance junction to ambient	$R_{\theta JA}$	55	°C/W	
Junction temperature	$T_J$	150	°C	
Storage temperature	$T_{STG}$	-55 to +150	°C	

Company reserves the right to improve product design , functions and reliability without notice.

## Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse breakdown voltage	$I_R = 100\mu A$	$V_{(BR)}$	250		V
Reverse voltage leakage current	$V_R = 200V$	$I_R$		0.1	$\mu A$
Forward voltage	$I_F = 100mA$ $I_F = 200mA$	$V_F$		1000 1250	mV
Diode Capacitance	$V_R = 0V, f = 1MHz$	$C_D$		5	pF
Reverse recovery time	$I_F = I_R = 30mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	$T_{rr}$		50	nS

### RATING AND CHARACTERISTIC CURVES (CDST-21/A/C/S-HF)

Fig.1 - Forward characteristics

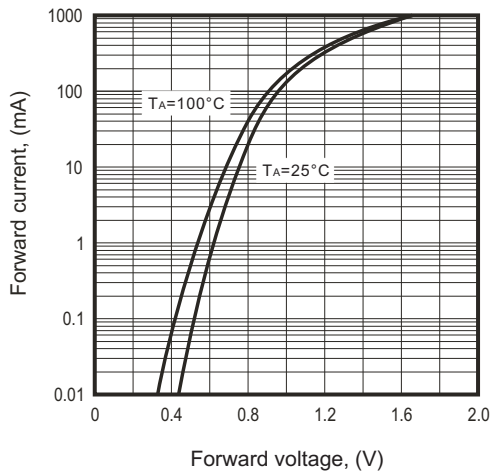


Fig.2 - Reverse characteristics

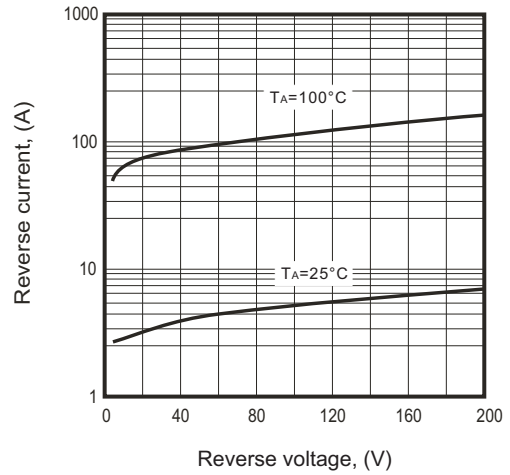


Fig.3 - Capacitance between

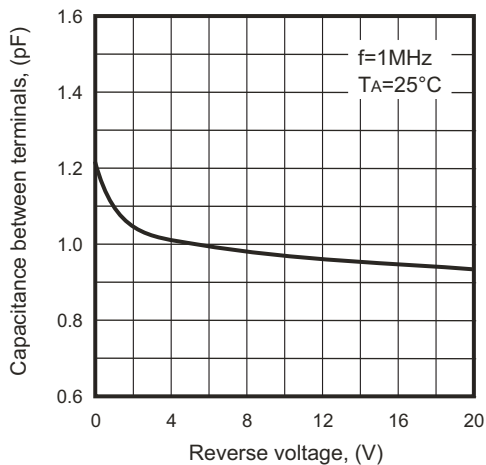
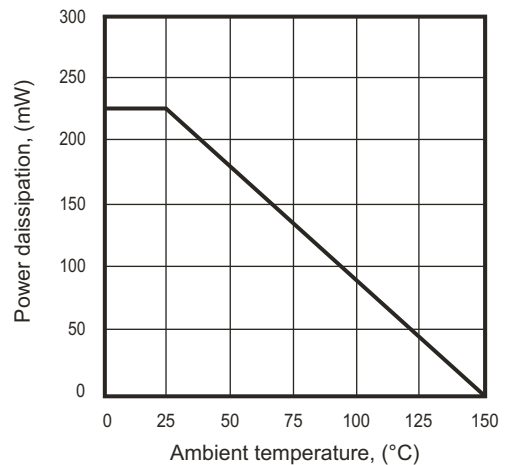
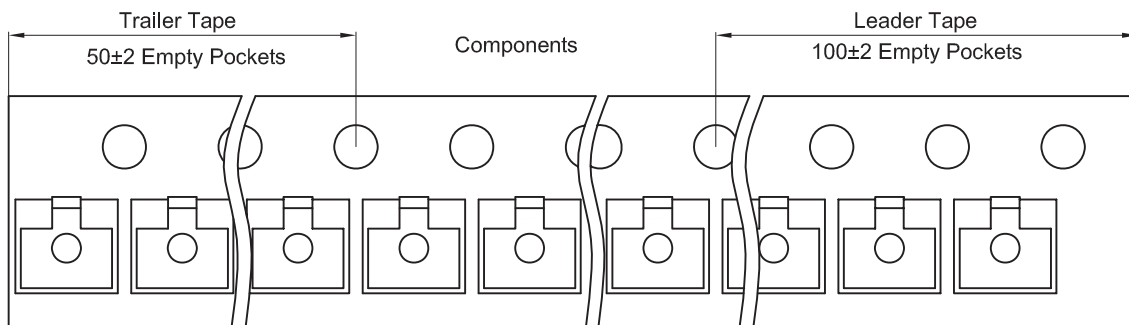
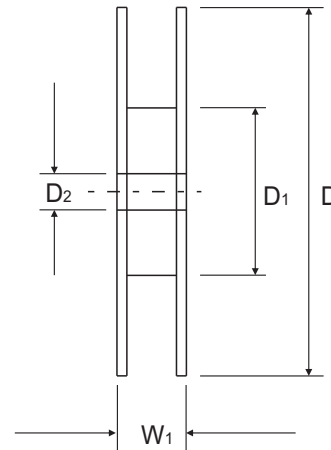
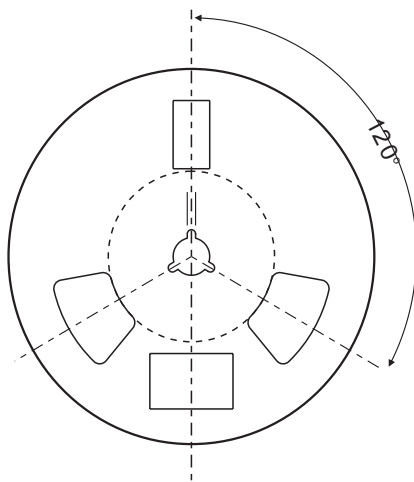
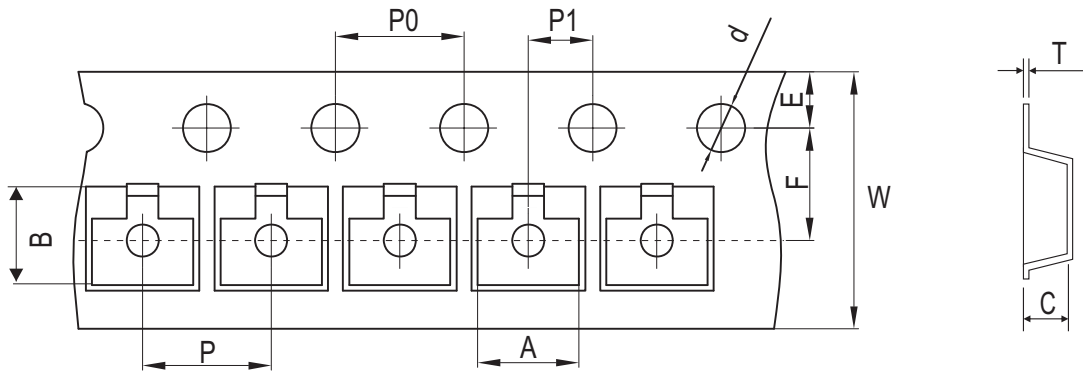


Fig.4 - Power derating curve



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## Reel Taping Specification



SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	Φ1.50 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	Φ0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

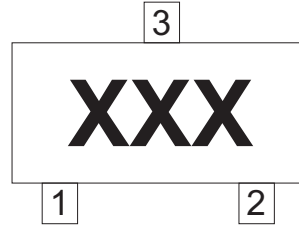
SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

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REV:A

## Marking Code

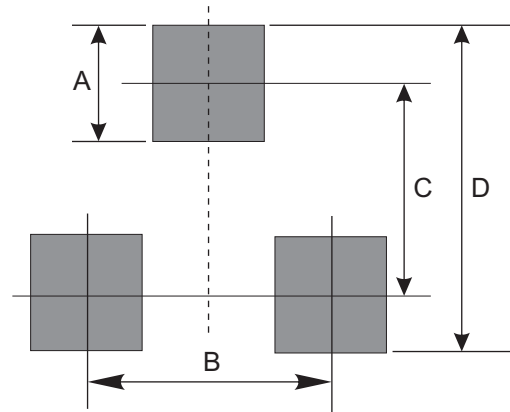
Part Number	Marking Code
CDST-21-HF	.JS
CDST-21A-HF	.JS2
CDST-21C-HF	.JS3
CDST-21S-HF	.JS4



xx/xxx = Product type marking code

## Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.80	0.031
B	1.90	0.075
C	2.02	0.080
D	2.82	0.111



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-23	3,000	7

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